



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,504	02/17/2004	Peter W. J. Jones	TBRX-P01-004	7870
28120	7590	10/06/2005	EXAMINER	
FISH & NEAVE IP GROUP ROPES & GRAY LLP ONE INTERNATIONAL PLACE BOSTON, MA 02110-2624			SMITH, RICHARD A	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/780,504

Applicant(s)

JONES ET AL.

Examiner

R. Alexander Smith

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 8, 9, 12-15, 17, 20-22, 25, 29-34, 37-39, 42 and 46-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8, 9, 12-15, 17, 20-22, 25, 29-34, 37-39, 42 and 46-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20050404.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 04 April 2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

### **Claim Objections**

2. Claims 12-15, 17, 21-22, 25, 29-34, 37-39, 42 and 46-51 are objected to because of the following informalities:

Claim 12: "An traffic light" should start with --A--.

Claim 25: Both occurrences of "florescent" should each be --fluorescent--.

Claim 37: "the second color includes a wavelength in the range of about 445 nanometers" makes the claim language confusing because it appears to the examiner that this range should be

referring to the first color. Furthermore, the range of about 445 is outside of that given in claim 25 for either the first or second colors.

Claim 42: "A industrial safety light indicator" should start with --An--.

Claim 46-51:

For each of the claims 46-51, the preamble, i.e., "The vehicle insignia of claim 42," is confusing because claim 42 is drawn to "A industrial safety light indicator" and not a vehicle insignia.

Furthermore, within the body of each of these claims are terms which also need addressed, i.e., "the insignia" and/or "the vehicle" and/or the vehicle includes a landcraft, a watercraft or an aircraft.

### **Claim Rejections - 35 USC § 103**

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 3, 8, 9, 12, 14, 17, 20-22 and 42 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 1,616,604 to Brophy in view of JP 10003596.

Brophy discloses a safety indicator, a traffic light and a safety light indicator comprising a first color highly visible to an observer having ordinary color vision having a color bandwidth and central wavelength in the red spectrum (at 37), a second color (at 25) to an observer having a bandwidth and wavelength in the green spectrum, wherein the first color substantially surrounds the second color; at least one of the first safety color and the second color is produced, at least in part, by a reflection of a light source (at 38), the first color is deposited next to the second color.

Brophy does not disclose a first safety color having a color bandwidth and a central wavelength between about 580 and 600 nanometers, the second safety color being more perceptible by blue-sensitive photoreceptors of a retina of the observer than by other photoreceptors of the retina having a bandwidth and a central wavelength between about 440 and 490 nanometers; the first color having a bandwidth and a central wavelength between about 620 and 780 nanometers, the second color being more perceptible by blue-sensitive photoreceptors of a retina of the observer than by other photoreceptors of the retina having a bandwidth and a

central wavelength between about 440 and 490 nanometers; the first safety color covers more of an area visible to the observer than does the second safety color, the second safety color covers less than about thirty percent of the area visible to the observer, the second color includes a wavelength in a range of about 445 nanometers, the bandwidth of the first color is greater than the bandwidth of the second color, the bandwidth of the second color covers less than about thirty percent of the visible spectrum.

'596 discloses that a blue lamp can be utilized in place green in order to provide a color that normal vision people and colorblind people can see (abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the indicator and light by replacing the green, taught by Brophy, with a blue color, as taught by '596, in order to provide an indicator and a light that can be seen by normal and color-blind people.

With respect to the particular color bandwidth and wavelengths in nanometers, i.e., between about 580 and 600 and between 620 and 780 for the first color, and between 440 and 490 for the second color, the second color includes a wavelength in a range of about 445 nanometers, and with respect to the bandwidth ratios, i.e., the first safety color covers more of an area visible to the observer than does the second safety color, the second safety color covers less than about thirty percent of the area visible to the observer, the bandwidth of the first color is greater than the bandwidth of the second color, the bandwidth of the second color covers less than about thirty percent of the visible spectrum: These limitations with respect to the bandwidth, the wavelengths, the coverage and the ratio of bandwidths are only considered to be the "optimum" values of the red and blue colors perceptible to a normal and color-blind human for the indicator and light disclosed by Brophy as modified by '596, as stated above, that a person

having ordinary skill in the art would have been able to determine using routine experimentation based, among other things, on obtaining the desired degree of noticeability for a normal sighted and color blind observer. See In re Boesch, 205 USPQ 215 (CCPA 1980).

With respect to claim 17, i.e., indicates a hazard: the intended use has not been given any patentable weight since the intended use does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations.

For the preambles of claims 1, 12 and 42: The Applicant should note that the preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

5. Claims 2, 4, 13 and 15 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Brophy and '596 as applied to claims 1, 3, 8, 9, 12, 14, 17, 20-22 and 42 above, and further in view of U.S. 6,054,932 to Gartner et al.

Brophy and '596 together teach all that is claimed as discussed in the above rejections of claims 1, 3, 8, 9, 12, 14, 17, 20-22 and 42 except for at least one of the first safety color and the second color is produced, at least in part, by a light source, and by a combination with the producing light source.

Gartner et al. discloses that color LEDs can be used to display information (abstract) and that advantages of LEDs including long life and less wattage to operate over conventional lamps. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the indicator and light, taught by Brophy and '596, by replacing the bulb with a corresponding color LED which produces color, e.g. red, as taught by Gartner et al., in order to reduce maintenance requirements and energy consumption.

6. Claims 25, 29, 30, 33, 34 and 37-39 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 2002/0145805 to Hall.

Hall discloses a safety garment wherein the garment with an optional hood includes multiple colors in panels and in patches [0042] and includes reflective material [0012] and fluorescent material [0040] with the intent is to increase visibility [0039 and 0042] during darkness, inclement weather and/or around motor vehicles. Hall discloses an example in the table [0041] and elsewhere [e.g., 0041] that includes the colors blue, red-orange, lime-yellow, silver, white and also mentions the use of standard international orange vests and discusses a combination of reflective, fluorescent and high gloss colors. Hall discloses a safety garment having first high gloss material panels and optional reflective material patches in the blue spectrum and a second high gloss and/or fluorescent and/or reflective colored material that cover lime to red, the garment including headwear, a torso covering, and a wearable insignia.

Hall does not disclose a first fluorescent material having a color bandwidth and a central wavelength between about 446 and 456 nanometers, the second fluorescent color having a



bandwidth and a central wavelength between about 525 and 665 nanometers; the safety garment being highly reflective about the central wavelength of the first color, the second color includes a wavelength in a range of about 445 nanometers, the bandwidth of the first color is greater than the bandwidth of the second color, the bandwidth of the second color covers less than about thirty percent of the visible spectrum.

With respect to the particular color bandwidth and wavelengths in nanometers, i.e., between about 446 and 456 for the first color, and between 525 and 665 for the second color, , the garment being highly reflective about the central wavelength of the first color, the second color includes a wavelength in a range of about 445 nanometers, and with respect to the bandwidth ratios, i.e., the bandwidth of the first color is greater than a bandwidth of the second color, the bandwidth of the second color covers less than about thirty percent of the visible spectrum: These limitations with respect to the bandwidth, the wavelengths, the reflectivity about the central wavelength of the first color, and the ratio of bandwidths are only considered to be the "optimum" values of the green-red color spectrum and of the blue color spectrum that a person having ordinary skill in the art would have been able to determine using routine experimentation based, among other things, on obtaining the desired degree of visibility to protect the wearer, as already taught by Hall. See In re Boesch, 205 USPQ 215 (CCPA 1980).

With respect to the first color being fluorescent, Hall discloses that a combination of reflective, fluorescent and high gloss colors can be used that includes high gloss blue and reflective blue. Therefore, the use of fluorescent blue, as claimed by Applicant, is considered to be nothing more than the use of one of numerous and well known alternate types of visibility enhancing means that a person having ordinary skill in the art would have been able to provide

using routine experimentation in order to make the blue highly visible as already suggested by Hall.

7. Claims 31 and 32 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Hall as applied to claims 25, 29, 30, 33, 34 and 37-39 above, and further in view of U.S. 6,306,459 to Fleming.

Hall teaches all that is claimed as discussed in the above rejections of claims 25, 29, 30, 33, 34 and 37-39 except for the safety garment including footwear and legwear.

Fleming discloses a material for safety garments which can include fluorescent in addition to retroreflection, gives options including blue or deep blue retroreflection, and discloses that the safety garment shown can include not only vests but other items of clothing including footwear and legwear (column 11, lines 1-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the safety garment, taught by Hall, to also include other articles of clothing such as footwear and legwear, as suggested by Fleming, in order to make the wearer more options and more area to increase visibility and noticeability.

8. Claims 42 and 46-51 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 6,461,008 to Pederson in view of U.S. 6,211,779 to Gibb et al.

Pederson discloses a safety light indicator and vehicle insignia comprising a first color highly visible to an observer having ordinary color vision having a color bandwidth and central wavelength in the red spectrum, a second color to an observer having a bandwidth and wavelength in the blue spectrum (column 8, lines 39-43), wherein the first color is deposited next to the second color. Furthermore, Pederson discloses that the lights can be mounted on the top of the vehicle (70 in figure 1 and 306 in figure 33), on the sides of the vehicle (308), as turn signals, brakes, etc. (column 8, lines 24-28), and as stand alone safety lights (column 7, lines 16-52).

Pederson does not disclose the first color having a bandwidth and a central wavelength between about 620 and 780 nanometers, the second color being more perceptible by blue-sensitive photoreceptors of a retina of the observer than by other photoreceptors of the retina having a bandwidth and a central wavelength between about 440 and 490 nanometers; and the limitations of claims 50 and 51.

Gibb et al. discloses that the colors of an emergency vehicle can be varied to aid the color blind. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the red and blue spectrums, taught by Pederson, to accommodate those having colorblindness, as suggested by Gibb et al., in order to improve visual observance of the indicator and insignia.

With respect to the particular color bandwidth and wavelengths in nanometers, i.e., between about 620 and 780 for the first color, and between 440 and 490 for the second color: These limitations with respect to the bandwidth and the wavelengths are only considered to be the "optimum" values of the red and blue colors perceptible to a normal and color-blind human for the indicator and light disclosed by Pederson as modified by Gibb et al., as stated above, that

a person having ordinary skill in the art would have been able to determine using routine experimentation based, among other things, on obtaining the desired degree of noticeability for a normal sighted and color blind observer. See In re Boesch, 205 USPQ 215 (CCPA 1980).

With respect to claims 50 and 51: Since numerous law enforcement agencies, e.g. the United States Park Police, the Coast Guard and L.A.'s police department including L.A.'s harbor patrol, employ not only cars but also watercraft and aircraft, it would have been obvious to one of ordinary skill in the art at the time of the invention to add the light indicator and vehicle insignia, , taught by Pederson, to the other emergency vehicles which include watercraft and aircraft, since these vehicles are also emergency vehicles and since it would help identify and make obvious to an observer that the vehicle is an official emergency vehicle.

For the preamble of claim 42: The Applicant should note that the preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

### ***Response to Arguments***

9. Applicant's arguments filed 19 July 2005 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related devices and indicators.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Alexander Smith whose telephone number is 571-272-2251. The examiner can normally be reached on Monday through Friday from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'R. Alexander Smith', with a stylized, cursive script.

R. Alexander Smith  
Primary Examiner  
Technology Center 2800

RAS  
October 3, 2005